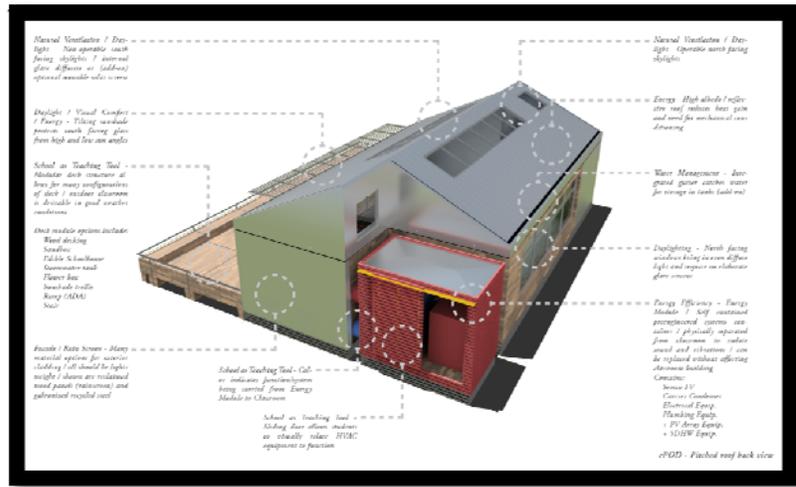


## Revolution: Sustainable Work, Live and Learn Spaces

**Impact:** Modular buildings are traditionally manufactured in a factory before being shipped to their final location. Off-site prefabrication and modular construction offers tremendous flexibility in both ease of structure relocation and its ability (at minimal cost) to quickly grow or shrink available space based on the number of structures at a given site. Another advantage it possesses is faster construction time compared to traditional construction.

This project will research, develop and design robust, integrated solutions for green, non-residential modular designs. The project team expects to develop design variations and performance specifications for a variety of components and integrated assemblies that could address the gap in demand for modular classrooms, mobile offices, disaster relief dwellings, and other building types. These sustainable work, live and learn spaces have a goal of eventually become the first non-residential, LEED certified (or compliant), sustainably produced modular structures in the United States (with the exception of modular green school products).

**Project Overview:** This research project will identify, design and develop green, integrated solutions for non-residential modular designs. It will examine both literature and practice in sustainable modular construction to create new sustainable guidelines and a “kit-of-parts” that will enhance the sustainability and performance of prefabricated modular structures in various climates and different building typologies.



**GBA Product Innovation Grant Amount:** \$20,000

**Leadership Team:** The Carnegie Mellon University team leaders will be Azizan Aziz, *Senior Research Architect*, and Professor Vivian Loftness, both from the Center for Building Performance and Diagnostics. Carnegie Mellon is partnering on the project with Terradime, LLC, a local development company founded by George Mongell, *Esquire, President and CEO*; Christian Wagner, *Director of Sustainable Design*, is another Terradime team member.

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